Minimization of the time between injury occurrence and transport to the appropriate level of medical care is necessary to ensure that wounded and sick soldiers obtain the prompt medical attention essential for their survival. During that time, aeromedical care in a MEDEVAC™ medical evacuation helicopter environment is used to identify and transport casualties.

Page 4, line 24, please change "MEDEVAC" to --MEDEVAC™ medical evacuation--.

A primary mission of military nurses is to ensure that wounded and sick soldiers obtain prompt medical attention and/or evacuation to definitive medical care. The actions performed during the time period between a battlefield injury and the transfer of casualties to appropriate medical treatment is critical for the welfare of the soldier, and can be the difference between life and death. It is during this critical time period where diagnosis and treatment begins and also when evacuation – for example via MEDEVAC™ medical evacuation helicopter – occurs.

Page 11, line 9, please change "MEDEVAC" to --MEDEVAC™ medical evacuation--.

The sensor pad is preferable placed directly beneath the back of a patient lying supine on a MEDEVAC™ medical evacuation litter. The mechanical/acoustic signals created by cardio-pulmonary function are transmitted through the body onto the passive sensor, which converts the signal into an analog voltage. An illustration of the existing P2M setup is shown in Figure 6. Among the major hardware used for the laboratory setup are: desktop computer, a multi-function programmable charge amplifier and roll-around rack to encase all of the hardware. To maintain versatility for initial research and development, most of the equipment were chosen for functionality at the expense of space efficiency.

Page 13, line 22, please change "MEDEVAC" to --MEDEVAC™ medical evacuation--.

Figure 14 shows schematic view of the Passive Physiological Monitoring (P2M) System Using a passive sensor array and microelectronics incorporated into a MEDEVAC™ medical evacuation litter.

Page 18. line 14, please change "MEDEVAC" to --MEDEVAC™ medical evacuation--.

For protection and east of transport, the entire P2M system 19 is encased in a metal technical enclosure 21 with casters (not shown) and locking glass door (not shown), as shown in Figure 2. The equipment also includes a MEDEVAC™ medical evacuation stretcher 23 on which the sensor is mounted. This device may be incorporated into a litter to eliminate the need for patient attachment or miniaturized as a portable field device in a purse with a wireless communication setup.

Page 24, line 5, please change "MEDEVAC" to --MEDEVAC™ medical evacuation--.

Testing of the P2M system for pulse and respiration in a high noise and vibration environment was performed at Wheeler Army Air Field, on March 5, 1999. Tests were performed during static display of a MEDEVAC™ medical evacuation helicopter. The main purpose of the test was to characterize the high noise/vibration environment using P2M, microphones and accelerometers. Results showed that through filtering and signal analyses, the P2M was able to discern physiological signals from the high amplitude and frequency noise caused by the helicopter to output accurately pulse and respiration. No conventional methods were performed at this test due to the high-noise environment, which would render those methods useless.

Page 26, line 24; please change "MEDEVAC" to --MEDEVAC™ medical evacuation--.

Passive monitoring of such parameters as cardiac output, cardiac function, and internal bleeding are within the scope of this invention. The invention uniquely provides a device that is passive (completely non-invasive), unobtrusive, and

autonomous; i.e., the apparatus in no way interferes either with the patient's mobility or with other monitoring equipment, and is capable of functioning with a minimum of technical expertise. In addition, the equipment functions reliably in high-noise environments and other situations that render alternative and existing methods ineffective. These environments include, but are not limited to, medical evacuation (MEDEVAC™ medical evacuation) by helicopter or ambulance, and operation through Military Orientated Protective Posture (MOPP) gear and body armor.

Page 27, line 11, please change "MEDEVAC" to --MEDEVAC™ medical evacuation--.

The invention may be incorporated into a wide range of applications apart from the MEDEVAC™ medical evacuation litter. The passive sensor array may be configured without much change to operate on a hospital bed or an ordinary mattress used at home. Of particular note is the area of premature infant care. In this case, the attachment of sensor leads to the infant may often be difficult, causing irritation of sensitive skin and entanglement in leads. The sensor may be incorporated into equipment for use in both civilian and military sectors. The sensor may be incorporated into field equipment, clothes and uniforms. This includes, but is not limited to, cervical collars, body armor, biological and/or chemical hazard protection suits, extraction devices, clothes, cushions and seats and seatbacks. Exercise equipment, such as stationary bicycles, treadmills or steppers may benefit by incorporated sensors into the supports.

Page 17, line 26, please change "LabVIEW™" to --"LABVIEW™ laboratory view--.

For system operation, a master program 17 combines the three separate software modules of data acquisition/control, signal processing/analysis, and data display/user interface. The LABVIEW™ laboratory view "G" graphical programming language was used for all three subroutine programs. The analog voltage signal is digitized and analyzed in time and frequency domains. Routines developed for signal conditioning and analysis include digital filtering, spectral analysis, auto correlation, and